

## **REMARKS**

Applicant has carefully reviewed the Office Action mailed June 20, 2008, and offers the following remarks to accompany the above amendments. Claims 4-39 have been cancelled, and claims 1-3 were previously cancelled. Claim 40 is pending.

Claims 4-39 were rejected under 35 U.S.C. § 103(a) as being rendered obvious in light of one or more of U.S. Patent No. 5,184,732 to Ditchburn et al., U.S. Patent No. 4,698,682 to Astle, U.S. Patent No. 5,613,048 to Chen et al., U.S. Patent No. 3,815,797 to Collender, and U.S. Patent No. 4,453,182 to Wilkinson et al. These claims have been cancelled without prejudice and to further prosecution of claim 40. Applicant respectfully traverses.

Claim 40 was rejected under 35 U.S.C. § 112, first paragraph, for not being supported by the specification. Applicant respectfully traverses. In general, the issue appears to be related to the term “motion blur,” which directly corresponds to the concept of “light tunneling” that is extensively described and discussed in the specification. As motion is captured on a fixed image camera during a single exposure, the moving portions of the image will blur and cause the “tunneling of light” in the resultant image. To avoid any confusion, claim 40 has been amended to change “motion blur” to “light tunneling,” which is clearly recited and explained as claimed in the specification, and address any potential issues with antecedent basis.

In particular, the Examiner states that the specification does not have support for the limitations “**a controllable amount of motion blur** (light tunneling),” “controlling the time length of exposure of each said adjacent or proximate camera to allow a **controlled amount of image motion blur** (light tunneling) caused by said moving subject or object to accumulate; and **displaying a sequence of said motion blur** (light tunneling) **images in a motion picture medium** to create the visual effect point of view of moving along said curve or path while viewing said scene.”

The term “tunnel of light” is described and discussed in numerous areas in the specification. In paragraph 0018 for example, this general concept is clearly described by discussing how the tunnel of light is created and what the tunnel of light looks like for one example:

Each camera was aimed roughly at a vertical target located at the vertex of this arc, and a frame of film in each camera was exposed in synchrony. The images of an assistant as she ran through this array, with cameras on bulb, and while she is

constantly illuminated by tungsten light have been joined and displayed at 24 frames per second to form a stunning new visual effect. The **tunnel of light** which she created can be rotated upon the screen through the ninety degrees, revealing new and marvelous visions of human locomotion. At one end of the rotational arc, the **tunnel of light** is oriented from left to right across the screen. At the other end of the rotational arc, she is running directly out toward the viewer. All angles in between were recorded by the arc, and during display, these angles flash in sequence upon the screen to simulate walking around this statue of a frozen stream of time.

The concept is further described in paragraph 0023 in relation to variable exposures wherein the exposure time varies from one millionth of a second and up. Please note the capturing of tunnels of light for different exposure “intervals” to freeze “short moments” of time to “longer moments” in time. It is worth mentioning that setting the cameras to bulb represents a long, if not indefinite, exposure time to those skilled in the art. As such, the disclosure clearly teaches the varying of exposure times (one millionth of a second to infinity/bulb) to control the length of the interval of time to be frozen, and as such the extent of light tunneling. The length of the exposure time will control the extent of light tunneling, as will be appreciated by one skilled in the art. Paragraph 0023 reads as follows:

When we speak of freezing a moment for analysis, we mean, of course that we record a ‘**short interval**’ of time for analysis. Even a **millionth of a second** is a stream of time. So, **short moments** can be frozen and analyzed, or **longer moments** can be ‘frozen’. For example, it is interesting to allow a subject to move through the target zone of a horizontally elliptical still camera array while the cameras are on **bulb**, thus capturing a **tunnel of moving light** on each frame of film; which **tunnel** can be rotated, or otherwise displayed visually according to our methods.

The following paragraph 0024 clearly describes the control of exposure times, which will control the extent of light tunneling. Please note that the specification allows a controller to control when recording of the image begins and ends. The time during which an image is recorded for a fixed image is the exposure time. Controlling when recording, or exposure, begins and ends is controlling the exposure time. The first portion of paragraph 0024 reads as follows:

We would employ a computer controlled timing device **to control the timing and sequence of array member energy capture to produce novel effects**. This would be a relatively simple computer program which would be capable of accepting instructions from a human operator and passing these instructions on to array members; which instructions detail **the time at which each particular array member (camera) was to begin and end recording**. Array members could be hard-wired to this control device (as in Matsunaga U.S. Pat. No. 3,682,064), or could be controlled by infrared or radio transmission. For instance, in a simple ring of 200 still cameras, one could time the array to capture first a frame from cameras 1 and 200 simultaneously, then 2 and 199 simultaneously, then 3 and 198, and so on, to 100 and 101, with a new pair of exposures being made at equally spaced time intervals so that the last pair, 100;101 is made 1/2 second after the first pair 1;200. If the cameras each capture a brief, "freezing" exposure of the subject, then selecting, arranging and displaying frames 1, 2, 3, 4, 5,6, etc. would produce the effect of moving around the subject from camera position 1 to 200; and at the same time the subject would change its position.

Paragraph 0024 not only discloses the control of exposure times to control the tunneling of light, but also the individual triggering of the cameras, as well as the option to trigger the cameras in the array in sequence. From the above, the specification clearly provides support for claim 40 and more than sufficient information to enable one of ordinary skill in the art to practice the claimed invention. As such, the rejection under 35 U.S.C. § 112, first paragraph, is improper and should be removed.

The present application is now in a condition for allowance and such action is respectfully requested. The Examiner is encouraged to contact Applicant's representative regarding any remaining issues in an effort to expedite allowance and issuance of the present application.

Respectfully submitted,  
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